

# PhD program in Electronics, Computer Science and Telecommunications (EIT)

---

Meeting of presentation of the XXIV cycle  
26 January 2008  
Prof. Paola Mello

## Organization: PhD Schools - Universita` di Bologna

---

- ◆ The PhD schools of the Alma Mater Studiorum have the aim to promote, organize and manage all the activities relating to research doctorates
- ◆ PhD programs relate to individual schools on the basis of shared and consistent cultural homogeneity of method investigation and educational backgrounds: requirements necessary for a balanced distribution of resources between the various courses.
- ◆ The departments and centers of excellence are the structures responsible for scientific research and are the point of reference of research doctorates. Currently the schools are 14.

## School of doctoral studies in science and engineering of the information

Dipartimento o Centro di Eccellenza	Direttore	Dottorato	Coordinatore del dottorato
Dipartimento di Elettronica Informatica e Sistemistica (DEIS)	Prof. Guido Avanzolini	Elettronica Informatica e delle Telecomunicazioni	Prof. Paolo Bassi ↓ Prof. Paola Mello
		Automatica e Ricerca Operativa	Prof. Claudio Melchiorri
		Bioingegneria	Prof. Angelo Cappello
Centro di Ricerca sui Sistemi Elettronici per l'Ingegneria dell'Informazione e delle Telecomunicazioni "Ercole de Castro" (ARCES)	Prof. Giorgio Baccarani	Tecnologie dell'informazione	Prof. Riccardo Rovatti ↓ Prof. Claudio Fiegna
Dipartimento di Scienze dell'Informazione (DSI)	Prof. Andrea Giuseppe Asperti	Informatica	Prof. Simone Martini

## The School of doctoral studies in science and engineering of the information

- ◆ The school Director: Prof. Paolo Ciancarini
- ◆ 2 representatives for each department or centre of excellence: Scientific Council:

DEIS	ARCES	DSI
Guido Avanzolini Marco Chiani	Giorgio Baccarani Enrico Sangiorgi	Paolo Ciancarini Fabio Panzieri

Angelo Cappello	Simone Martini	Paola Mello	Claudio Melchiorri	Claudio Fiegna
-----------------	----------------	-------------	--------------------	----------------

## PhD in Electronics, Computer Science and Telecommunications (EIT)

---

- ◆ This Doctorate is for researches for the advancement of all fields of Electronics, Computer Science, Telecommunications and Electromagnetic Fields.
- ◆ The Doctorate of Research in Computer Science, Electronics and Telecommunications, of triennial duration, is placed at the third level of the university formation in the fields of the Electronics, Computer science, Telecommunications and Electromagnetic Fields, after the Bachelor level (3 years) and the Master level (+2 years).
- ◆ The Doctorate refers, from the administrative point of view, to the Department of Electronics, Computer Science and Systems (DEIS) of the University of Bologna. It belongs to the Doctorate School of Information Science and Engineering.

## PhD in Electronics, Computer Science and Telecommunications (EIT)

---

The Doctorate has been activated since the first cycle, 13 December 1983.

- ◆ **Research fields**

The doctorate activity concerns a wide spectrum of research topics correlated with many applicative areas in the field of the Information Society Technology and is characterized by three different curricula: Electronics, Computer Science and Telecommunications.

- The curriculum in **Electronics** considers devices, circuits and electronic systems. Microelectronics, in particular, deserves a particular importance among the developed activities, for what concerns its more recent developments in micro and nano-technologies, intelligent sensors, electronics for telecommunications, digital system electronics and electronics for actuators and control.
- The curriculum in **Computer Science** includes many topics relevant to both software and hardware research themes. Particular attention is given to multimediality and distributed processing: multimedia, distributed systems, network computing, technologies for emergency, agent systems, artificial vision and artificial intelligence.
- The curriculum in **Telecommunications** studies not only transmission systems and networks, but also problems related to design and realization of the relevant devices or components. Studied applications refer to different operating frequencies, which range from radiofrequencies, for terrestrial and satellite wireless systems, microwaves, up to optical ones.

## How is the PhD organization structured?

---

- ◆ There are two main components: the Coordinator and the Teaching Board (Collegio Docenti).
- ◆ The Coordinator is a full professor at University of Bologna; his duty is to direct the Research Doctorate course and he is elected by the Teaching Board. The mandate lasts three years and the same Coordinator can be re-elected.
- ◆ The Coordinators have been subsequently professors. Ercole De Castro (until 1984), Pier Ugo Calzolari (until the A.A. 1987/88), Leonardo Calandrino (until the A.A. 1990/91), Paolo Tiberio (until the A.A. 1993/94), Bruno Riccò (in the A.A. 1994/95), Fabio Filicori (until the A.A. 2003/04), Paolo Bassi (until April 2008)..
- ◆ Currently, the Coordinator is Prof. [Paola Mello](#). In case it is needed, the Coordinator is substituted by the vice-Coordinator, currently Prof. [Paolo Bassi](#).

## Ph.D Program in EIT

---

**Coordinator:**  
**(from 1 May 2008)**  
**prof. Paola Mello**

tel: 051 2093018

e-mail: [paola.mello@unibo.it](mailto:paola.mello@unibo.it)



# Duties of the Coordinator

---

- ◆ W.r.t. activities involving PhD students, the duties of the Coordinator are as follows:
  - to coordinate and to organize the formative and administrative activities of the Research Doctorate;
  - to chair the Teaching Board;
  - to give/deny authorization to PhD student for teaching activities and periods of research out of the PhD main site, on the basis of programmed activities;
  - to give/deny authorization to PhD student for teaching activities and periods of research abroad lasting no more than six months, on the basis of programmed activities;
  - to appoint a vice-Coordinator to be substituted in case of unavailability;
  - to carry out the duties delegated by the Teaching Board; to conclude conventions, contracts collaborations.

## Present Board of Teachers (Collegio Docenti)

---

- |                        |                         |
|------------------------|-------------------------|
| ◆ Oreste Andrisano     | ◆ Roberto Guerrieri     |
| ◆ Paolo Bassi          | ◆ Dario Maio            |
| ◆ Luca Benini          | ◆ Guido Masetti         |
| ◆ Aurelio Boari        | ◆ Paola Mello           |
| ◆ Marco Chiani         | ◆ Antonio Natali        |
| ◆ Paolo Ciaccia        | ◆ Bruno Riccò           |
| ◆ Giorgio Corazza      | ◆ Vittorio Rizzoli      |
| ◆ Antonio Corradi      | ◆ Massimo Rudan         |
| ◆ Giovanni E. Corazza  | ◆ Tullio Salmon Cinotti |
| ◆ Gabriele Falciasecca | ◆ Claudio Sartori       |
| ◆ Fabio Filicori       |                         |

# Duties of the Teaching Board

---

- ◆ The duties of the Advisor Board are :
  - to choose a tutor (advisor) to supervise the research activity of each PhD student;
  - to define the conditions for the admission exams;
  - to give/deny authorization to PhD students for research period abroad lasting more than six months;
  - to evaluate and judge the equivalence requests for educational qualifications and degrees got abroad, on the sole purpose of giving admission to the Doctorate course the candidate is interested in;
  - to evaluate and judge the activities of each PhD student w.r.t. to advances to the next PhD year and/or admission to the final exam;
  - to take care of the relationships with other Universities in Italy and abroad and other private or public institutes, in order to improve formative and research activities of the PhD students;
  - to foster, also through the institution of specific conventions, the mobility of PhD students;
  - to assign teaching activities within the Doctorate;
  - to propose candidates for the Examination Committees

# PhD in cooperation (co-tutela)

---

- ◆ To be defined in the first year of the PhD program (exceptionally in the second, to completion of a process already started);
- ◆ Convention with other European university that determines: enrolling at both universities
- ◆ access to the facilities for both
- ◆ insurance against accidents;
- ◆ the nomination of two supervisors of thesis, one for the Italian part, the other for the other University participant with the same responsibilities;
- ◆ activities in the two university for periods approximately equal;
- ◆ final debate with a mixed Commission with at least four members (among which both supervisors)

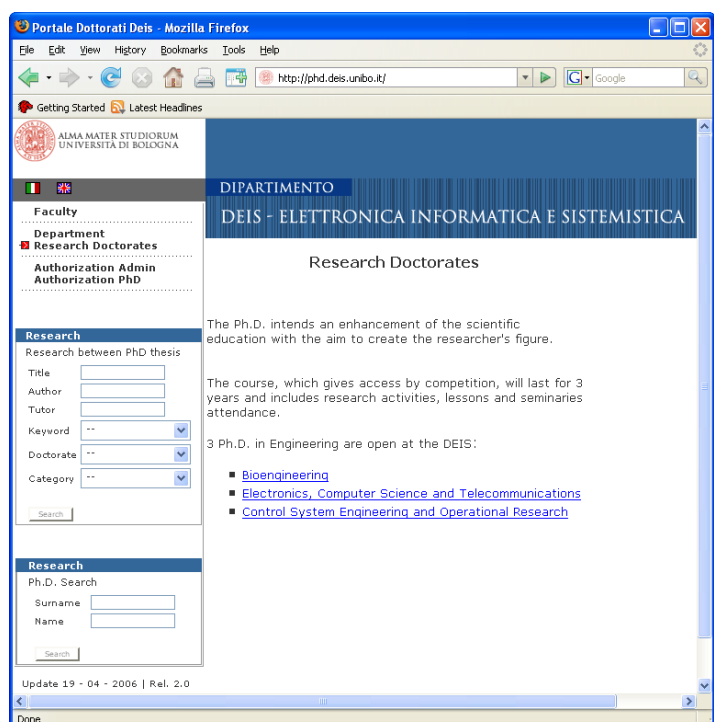
# Doctorat Europeus

- ◆ The PhD school send to the research commission of the University of Bologna a declaration in which certify that the PhD candidate for which it requires the title of European doctorate, satisfies the following four conditions:
  - thesis approved beforehand with a report drawn up by at least two professors belonging to universities of two other European States; (deadlines!)
  - at least one member of the Commission that assigns the title belongs to university other than that in which the doctorate is supported;
  - the defense is done in a language Europeus (different from Itlalian)
  - The research has been carried out for at least six month in another european country.

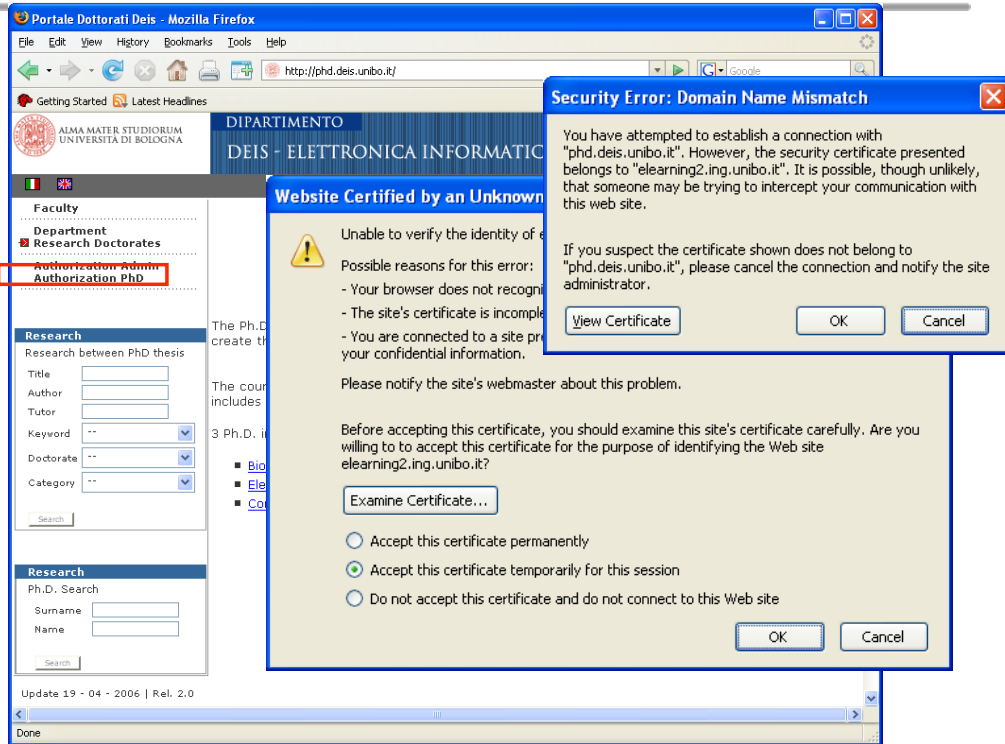
## Web-site

<http://phd.deis.unibo.it>

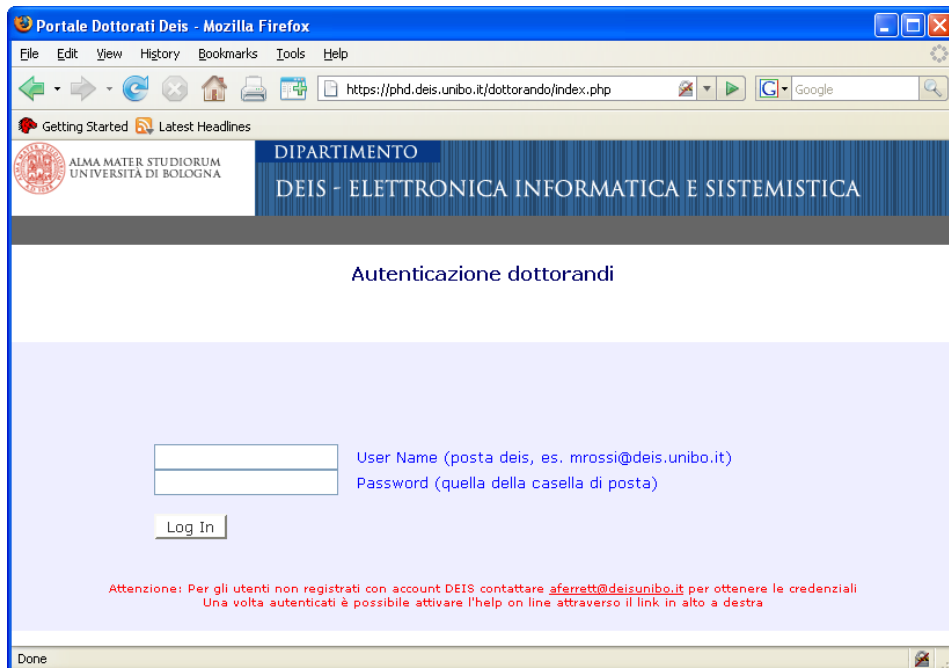
- ◆ <http://phd.deis.unibo.it> in this site will be included information about you relations, bibliographical references, publications, PhD thesis, ...



# Web-site



# Web-site





# Web-site

---

- ◆ Choose the theme of your research
- ◆ Request authorisation for any compatibility (research/contract)
- ◆ Please to **request the email to CESIA**
- ◆ compile its page on the web site ...
- ◆ keep it updated
- ◆ Now we have also **FAQ!!!** Please contribute!

## FAQ - Index (1)

---

- ◆ **General questions**
  - What is the PhD in Electronics, Computer Science and Telecommunications about?
  - I am interested in this PhD, how do I apply?
  - Where can I get general information about PhD administration in Bologna?
  - Who can I ask for information, if the FAQs are not enough?
- ◆ **Research Doctorate organization**
  - How is the PhD organization structured?
  - Who is and what is the role of the Coordinator?
  - What is the Advisor Board and who are the members?
  - What are the duties of the Advisor Board?
  - Who are currently the members of the Advisor Board?
  - When do the Advisor Board meetings happen?
- ◆ **Duties**
  - How do I advance to the next year?
  - What is the PhD evaluation procedure?
  - What are the rules to compile and submit the PhD final dissertation?
  - Are there more duties beside the those related to advancing to the next year and writing the dissertation?
  - How can I quit the PhD?

## FAQ- Index (2)

---

- ◆ **Scholarships and doing research abroad**
  - How to apply for the Marco Polo programme?
  - Who is required to spend some research time abroad?
  - How can I cooperate with foreign institution during the PhD?
- ◆ **European doctorate**
  - What is the European Doctorate?
  - How can I get the European Doctorate?
  - What are the implications w.r.t. the "PhD" title?
  - What is the procedure to get the "Doctor Europaeus" title?
- ◆ **PhD with a co-advisor**
  - What is PhD with a co-advisor?
  - How do I start a PhD with a co-advisor?
  - When do I start a PhD with a co-advisor?
  - How do I advance to the next year?
  - What are the implications w.r.t. the "PhD" title?

## FAQ index (3)

---

- ◆ **Courses**
  - As a PhD student, can I have I to take any course?
  - How can I get information about seminars?
  - How many credits do I have to collect?
  - How do I collect credits?
  - How do I compute the number of credits I get?
  - I want to take a specific course (and get the corresponding credits): what do I have to do?
  - I want to take a specific school (and get the corresponding credits): what do I have to do?
- ◆ **Activities other than the PhD**
  - Can I get a temporary job during the PhD?
  - Can I do some teaching activity during the PhD?
- ◆ **Other questions**
  - Where do I find application forms and other related stuff?

# More Informations

---

Who can I ask for information, if the FAQs are not enough?

- ◆ Ask the Coordinator for general questions;
- ◆ Ask the DEIS Research Doctorate office for administrative questions.

**Loretta Luccarini**  
opening time: LUN-VEN, 10.00-12.00  
DEIS - Secondo piano  
Tel: 051/2093007 Fax: 051/2093195  
E-mail: [loretta.luccarini@unibo.it](mailto:loretta.luccarini@unibo.it)

- ◆ Ask the Central Research Doctorate office for further administrative questions.

Ufficio Dottorato di Ricerca via delle Belle Arti, 42  
lunedì, mercoledì, venerdì  
9.00 - 11.15

martedì  
9.00 - 11.15  
14.30 - 15.30

giovedì  
14.30 - 15.30  
Tel: +39.051.2094620

+39.051.2094615  
+39.051.2094624 +39.051.2094649

- ◆ <http://www.unibo.it/Portale/Ricerca/Dottorati+di+ricerca/default.htm>

---

## What rights/duties for you?

NB some are news !

# Formative Offer

---

There is a strong link between the research activities carried out at DEIS and those of the PhD students: through the addressing and guiding advice of the Tutor (and Co-tutors), the PhD students activities are in fact integrated with those of DEIS.

- ◆ This allows students to operate also in the framework of national and international collaborations and contracts with research institutions or industries.
- ◆ A further way to encourage the internationalization of the activity of the students is given also by the possibility that they have to spend from six and eighteen months of their activity in a foreign country.
- ◆ In parallel to the research activity, PhD students also continue to study, in view not only of widening their knowledge, but also to acquire the methodological approach to be able to become autonomous in the research field they are investigating.
- ◆ This is obtained, for example, attending courses or seminars, hold by speakers also invited from abroad, in the framework of the previously mentioned national and international collaborations.
- ◆ Also the possibility to attend doctorate national or international schools organized to offer a particularly qualified didactic activity to students of different University pursuing researches in the same fields is encouraged.

# PhD Rights/Duties

---

- ◆ Frequency to DEIS is mandatory;
- ◆ didactic activities certified (= with examination): should lead to **180 credits** on the three years (1 credit = 1 Hour) ES: 1 specialised degree course year but also: schools of doctorate, ...
- ◆ activities of research abroad (6-18 months in the three years): **6 months mandatory for PhD with the fellowship** (augmented if you are abroad)

# PhD Rights/Duties

---

- ◆ Seminars/evaluations
  - Seminar at the end of the second year
  - Seminar for the admission to the final examination (end of the third year)
  - PhD thesis (March) with Comments by two external reviewers (has to be finished at December) - This is new!!!

# Authorizations

---

- ◆ To be authorised by the Teaching Board:
  - Didactic Activities made (lectures, seminars):
  - Didactic Activities followed: (university courses)
  - Reaserch abroad;
  - Job activities, contracts and stages

End Now!!

---

... al lavoro!

good luck!